



Faculty of Public Health Medicine  
Position Paper- Cancer Screening

July 2013

## The Issue

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Before the decision is made to undertake a population-based cancer screening programme, appropriate attention should be paid to specific criteria including:

- The cancer has to be a significant health problem.
- The test ideally should be cheap and acceptable to the population.
- The test can pick up cancer when it is present (be sensitive) and can also identify correctly those who do not have a cancer (be specific).
- There should be sufficient scientific evidence that early detection improves outcome.
- There should be evidence that the benefits outweigh the risks of the screening programme.

Once in place cancer screening programmes require continuous quality assurance. Adequate links between cancer screening programmes and an appropriately supported national cancer registry for determination of interval cancers<sup>i</sup> and survival is paramount. The changes seen in population demography in recent times have relevance to cancer screening programmes. Life expectancy in most developed countries has risen in recent years, due to improvements in medical care, new medical treatments and changes in lifestyles. Life expectancy at birth for women in Ireland rose steadily from 73.5 years in 1973 to 81.6 in 2006. Life expectancy at older ages is higher, so that a woman aged 65 can expect on average to live another 19.8 years. Similar but smaller increases have occurred for men. This increase in life expectancy has implications for screening, as it increases the years of potential life that may be saved. This is important as years of potential life saved is an important determinant of whether or not to introduce screening.

In Ireland the National Cancer Screening Service is responsible for provision of population cancer screening.

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<sup>i</sup> A cancer that develops in the intervals between routine screening for a particular cancer— e.g., prostate cancer, breast cancer, etc

## The Solution

### Cervical Screening

From looking at follow up studies, changes over time, at differences between countries with and without organised screening programmes and at case control studies, there is ample evidence of reduction in cervical cancer mortality as a result of screening. While rates of invasive cancer have fallen in England as a result of an organised programme, they rose over the same period in Ireland, before our organised programme CervicalCheck was introduced in September 2008. In CervicalCheck, screening is provided every three years for women aged 25-44 and every five years for women aged 45 to 60, once a woman has two normal smears.

The introduction of the HPV vaccine as primary prevention against cervical cancer will likely have an impact on cervical screening, with possible alterations to the screening algorithm. Screening will still be essential to protect vaccinated women against cervical cancer caused by non-HPV 16/18 high-risk HPV types and to ensure protection of non-vaccinated women.

### Breast Cancer Screening

For breast cancer there is evidence of a reduction in deaths from several screening trials. Although there has been controversy regarding overdiagnosis, there is general consensus that screening in women aged 50-69 can reduce mortality from breast cancer. In Ireland, BreastCheck, the National Breast Screening Programme, invites women aged 50-64 years every 2 years for screening. As breast density is known to affect mammographic accuracy, denser breast tissue in younger, premenopausal women makes mammographic screening less effective on a population basis. The advent of digital mammography appears to have improved screening capability for some younger women under the age of 50.

### Colorectal Cancer Screening

The numbers of colorectal cases and mortality rates are set to increase as our population ages. Incidence rates for both sexes are among the highest in Western Europe and mortality rates in men are higher than elsewhere in Western Europe. The Faculty welcomes the commencement of BowelScreen, the population colorectal cancer screening for men and women in 2012; initially screening will be aimed at men and women aged 60-69 but ultimately will include all those aged 55-74 years. Faecal immunochemical testing (FIT) appears to provide fewer dietary

and drug restrictions and greater sensitivity and specificity than guaic FOBT<sup>ii</sup>, and is the method employed in BowelScreen and in several European countries.

## Prostate Cancer Screening

Prostate specific antigen (PSA) testing is currently the best method of identifying an increased risk of localised prostate cancer. However, PSA testing has relatively poor sensitivity and specificity and may lead to over diagnosis and over treatment. This is because PSA investigations can diagnose clinically insignificant cancers which would not become evident in a man's lifetime, with potential negative impacts of treatment outweighing benefits..

Until there is clear evidence to show that a national screening programme would bring more benefit than harm, the Faculty does not advocate introduction of a national screening programme for prostate cancer and concurs with the National Cancer Forum.

## Opinion of RCPI Faculty of Public Health Medicine

We, the RCPI Faculty of Public Health Medicine, support population cancer screening programmes where supporting evidence of mortality improvement exists, ideally from randomised controlled trials, and where the benefits outweigh any disadvantages of population screening.

Specially, we believe that the current population screening programmes for breast cancer, cervical cancer, and colorectal cancer are appropriate, based on current evidence. We do not support introduction of prostate cancer screening unless further evidence of benefit is provided from trials.

We support the current programme for HPV vaccination in combination with a well-resourced, quality assured national cervical screening programme.

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<sup>ii</sup> Guaiac faecal Occult B.ood Test (gFOBT) detects the presence of blood in the faeces that cannot be seen.

## Recommended Actions

Action	Who
Continue to examine new evidence on current and new screening programmes	DoH, National Cancer Screening Service, RCPI Faculty of Public Health Medicine,
Quality assurance of all national cancer screening programmes should be done on a continuous basis.	National Cancer Screening Service

## References

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<http://www.breastcheck.ie/>

<http://www.cervicalcheck.ie/>

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